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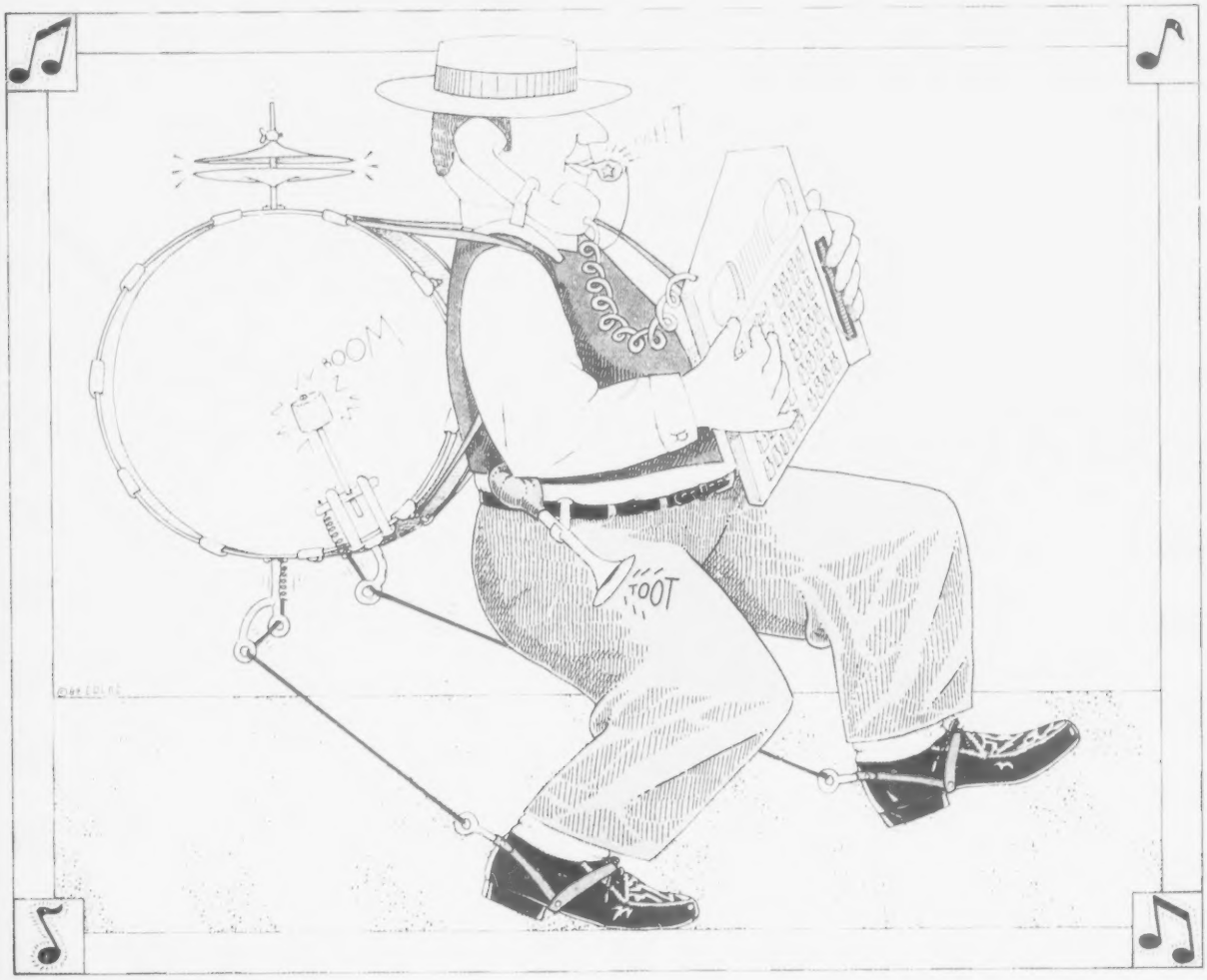

AND THE BAND PLAYS ON Key systems are the one-man bands of the telecom world

BROADBAND DRAWS MIXED REVIEWS IN ANAHEIM

Fujitsu, Northern reveal plans while others take a more cautious stance

CWA, IBEW THREATEN STRIKE AGAINST AT&T

AT&T remains optimistic that strike can be averted

MONDAY, MAY 29, 1989 Volume 216, No. 22

Telephony

INTEGRATING VOICE & DATA COMMUNICATIONS

What's the beat on the street? It's the key system, the one-man band of the telecom world, loaded down with capabilities once provided only by larger or multiple systems. Cover art by Jim Colao

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By Deborah Pfeiffer. Amazingly enough, you can get a marching band sound, complete with drum beats, whistles and toots, from a one-man band. Key systems are the one-man bands of the telecom world, providing capabilities once only associated with larger or multiple systems

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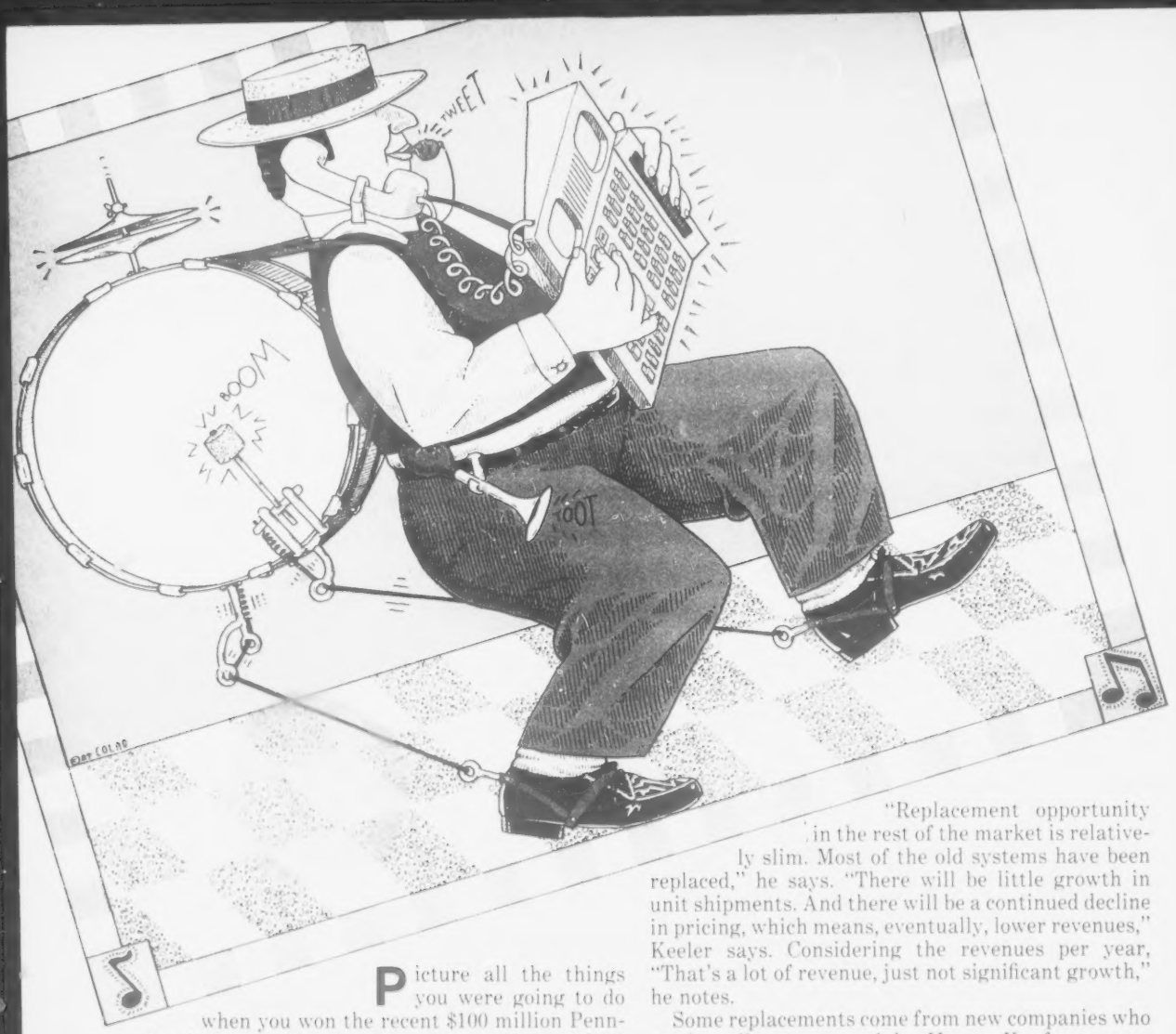

And the band plays on

A one-man band produces the sound of a marching band complete with the bang of a drum. Key systems provide features in the same way, loaded down with capabilities once performed only by larger or multiple systems

DEBORAH PFEIFFER, Associate Editor

Picture all the things you were going to do when you won the recent $100 million Pennsylvania lottery. Now imagine what you'd do with 15 times that amount. Mind-boggling, isn't it? The key system market generated roughly that same amount—$1.4 billion in retail buyer revenues—in 1988, according to Northern Business Information/Datapro.

Those revenues are nothing to scoff at. But 1987 retail buyer revenues for key systems were also $1.4 billion, meaning the market is relatively flat.

"The key system market is stagnant. It's expected to remain stagnant or flat over the next five years. For 1988, growth is at about ½ of 1% for stations shipped. Revenues are declining," says Dave Keeler, industry analyst for Dataquest.

The market is extremely mature and largely saturated, so there is little opportunity in the market, in Keeler's assessment. The bulk of the market is replacements. The high end of the market—the larger size systems—is predominantly being taken over by PBX systems, he says. In 1986 and 1987, growth predominantly was driven by the emerging low-end market, defined as less than five stations per system. But for 1988, that market also looks saturated, Keeler maintains.

"Replacement opportunity in the rest of the market is relatively slim. Most of the old systems have been replaced," he says. "There will be little growth in unit shipments. And there will be a continued decline in pricing, which means, eventually, lower revenues," Keeler says. Considering the revenues per year, "That's a lot of revenue, just not significant growth," he notes.

Some replacements come from new companies who need small systems, explains Harvey Kaufman, executive director of marketing for Siemens Information Systems. "They tend to move a lot and many times feel that it's just cheaper to abandon the old system and buy a new one when they do move."

TIE/communications' Onyx II key system and Onyx III digital hybrid

Playing the Same Tune

Keeler sees little differentiation between products. "Manufacturers seem to be trying to drive a replacement cycle based on digital," he notes. "Digital doesn't really add features to a system; it's more a 'perception' or a positioning factor. Like 'new and improved.' "

Other industry members think digital capability has a weightier role in the market. The key system market *has* been stagnant, agrees Bill Rich, analyst for Northern Business Information/Datapro. But he sees digital functionality infusing new growth into the market. His company predicts 6% growth in terms of shipments per year from 1988 to 1992.

Several companies, mindful of this growth potential, have already introduced new digital models. Just in the last eight months, the industry has seen the introduction of Executone's Isoetec/System 108 key/hybrid/PBX, Fujitsu's Starlog business system, Macrotel's MT80D digital hybrid key telephone system, Nakayo Telecom's KDX-88 key system, Northern Telecom's Norstar M7342 key system, Panasonic's digital business system family, TIE/communications' Onyx II key system and Onyx III hybrid, and Toshiba's Strata DK56 and DK96 key systems.

Most new key systems on the market have similar features, making them almost generic. New features quickly become standard, potentially indicating that the market is price-driven. Digital capabilities, voice mail interfaces, voice-data interfaces, least-cost routing and call detailing are some of newer functions now available or becoming available on most systems.

Unable to differentiate themselves along features lines, manufacturers have been forced to distinguish themselves in their marketing approach. Some offer an entire range of interworking products. Others push their customer service and support, or Centrex compatibility and distribution.

Functions and performance have more meaning for professional businesses requiring larger key systems, says Rich, so some manufacturers have centered on these "premium accounts," stressing customer service and support.

"For example, a law office would need more support than a restaurant. At a restaurant, as long as people can get through on some line and make reservations, that's all they care about. But at a law firm, if attorneys aren't getting calls, the firm gets pretty upset," he says.

"With bigger businesses, functions have more meaning.... Solutions and applications become more important, and there is more interest in special features, such as attendant, detail accounting and voice mail," says Siemens' Kaufman.

Several companies, including Kanda Telecom, Macrotel, Nakayo, Teledial, Inter-Tel and Eagle Telephonics, are offering small systems compatible with Centrex. Alcatel is also aiming at the lower end of the market, specifically 100 stations and down, and is providing Centrex compatibility.

As Charles Hampton, director of product management for Alcatel Cortelco, sees it, predictions of a flat key system market may be optimistic—and unrealistic.

"As CO service providers become more in sync with CPE providers and start stressing Centrex services, they will take a significant piece away from the key system market," Hampton says. For that reason, Alcatel plans to introduce a Centrex line of station instruments later this year.

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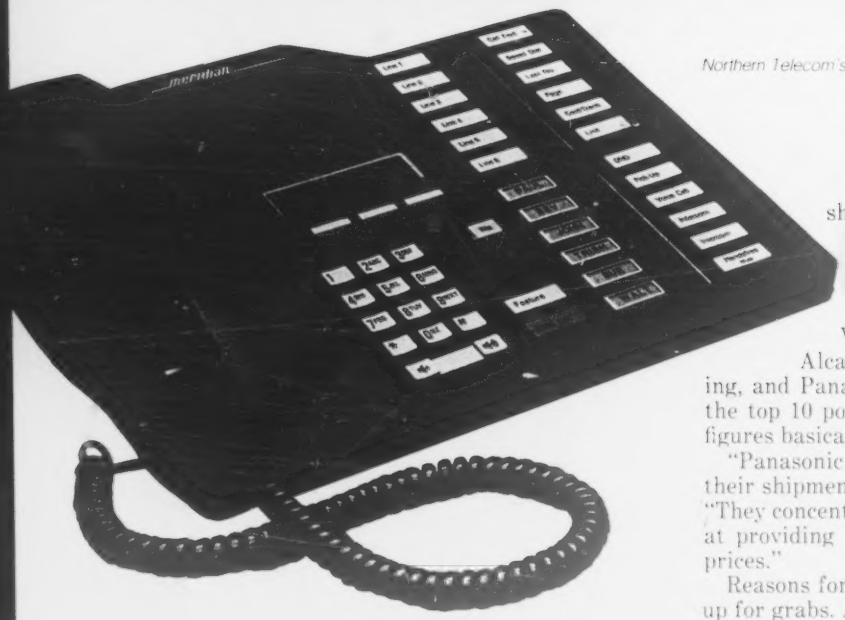
Inter-Tel's GMX-48 key telephone system



Northern Telecom's Norstar M7324 key system

The Band *continued*

factor in getting ahead in the key system market is distribution.

"Distribution is an important driver of the market," says Rich. To make it in the key system market, he notes, "a company has to have a solid distribution channel and manage it well." In the past, a manufacturer would sell to supply houses or distributors who would manage several brands, leaving the manufacturer with no exclusivity. Many of the top players in the market, according to market share, now directly distribute to end users.

Distribution is a key to whether Siemens, a late entrant in the market, succeeds. When it entered the market last December, the company already had an established distribution network. It has an advantage over other key system hopefuls, says Kaufman, because it distributes directly through Tel Plus Communications Inc., its nationwide network, and through Gold Seal dealers and Associated Siemens Dealers, both independent interconnects.

And with its PBX line, Siemens is a full-line supplier, notes NBI's Rich. "Though it's a tough market, few are positioned to do as well in the market, coming in late," he says.

Too Many Notes

Due to the flat market, consolidation has been a way for manufacturers to increase market share. Manufacturers have bought up distributors to improve distribution. For example, TIE/communications, ranking second in terms of market share (Table 1), has been buying up interconnects, allowing them to sell directly to end users now, says Rich.

Some consolidations also have taken place among manufacturers. Created out of a merger of Isoetec and Vodavi, Executone Communications acquired spot No. 3 in Dataquest's 1988 market share ranking, according to Keeler. With industry consolidation, the number of interconnects and Independents in the market has declined.

Also due to consolidation, market share ranking has not mirrored the stagnant market. According to Dataquest's 1988 market share ranking, based on shipments (not yet available), the Executone merger put the Vodavi and Isoetec systems at No. 3, Alcatel and Iwatsu have dropped in ranking, and Panasonic and Comdial have made it into the top 10 portion from positions 11 and 12. NBI's figures basically back this up.

"Panasonic and Comdial's successes are based on their shipments in small-system sizes," says Keeler. "They concentrated on that and were very successful at providing reliable, good quality systems at low prices."

Reasons for Iwatsu's and Alcatel's drop are more up for grabs. Alcatel's Hampton partially attributes his company's loss of market share to a lack of compatibility between systems. "Each stand-alone system is good on its own, but they aren't compatible," which makes it hard to market the system to companies that want a wide range of interworking systems. He also notes, though, that industry rankings don't take into account electromechanical key telephone systems, of which Alcatel is the largest supplier.

Most of the "one-man bands" are playing the same instruments, making it difficult for any manufacturer to cite one feature that distinguishes its key system from all the others. In fact, the market seems startingly similar to a textbook model of an oligarchic price-driven market, complete with consolidations and mergers.

TABLE 1
KEY TELEPHONE SYSTEM MARKET SHARE FOR 1988
(Based on shipments)

1988	Company
20.8%	AT&T
17.2%	TIE/communications
15.8%	Executone
8.3%	Toshiba
4.7%	NEC America
3.5%	Iwatsu
3.5%	Inter-Tel
3.0%	Fujitsu
2.5%	Mitel
2.3%	Comdial
1.8%	Walker
1.7%	Deka
1.4%	Eagle
1.4%	SMS Group
1.6%	Northern Telecom
1.2%	Telrad
0.4%	Panasonic
1.0%	IBM
1.0%	STC/Asuzi
0.7%	Alcatel/ITT
6.1%	Others
100.0%	Total

Source: Northern Business Information estimates. Copyright 1988/ McGraw-Hill Inc.

Digital key telephone systems, however, are playing the one new melody in the industry. And this new tune may revitalize the market, just as electronic key telephone systems did, replacing the electromechanical 1A2 in years past. The bell may not be tolling for the key system market yet. T